WHAT IS CLAIMED IS:

1. A wireless phone, comprising:

a first wireless communication portion in circuit switching mode;

a second wireless communication portion in packet communication mode;

a controller for receiving quality information relating to both a first sound signal received and decoded through the first wireless communication portion, and a second sound signal received and decoded through the second wireless communication portion, and controlling switching between the first and second sound signals at intervals of a speech pitch period based on the quality information, while outputting a delay control signal to compensate for time difference between the first and second sound signals, based on the quality information; and

a delay portion for receiving the delay control signal from the controller and compensating for the time difference between the first and second sound signals.

2. The wireless phone as set forth in claim 1, wherein in the case where data communication not employing sound is performed together with sound communication, i) if the controller detects that the first sound signal has low quality and the second sound signal cannot be received, the sound communication is performed by the first wireless communication portion, and the data communication is performed by the first wireless communication portion while the sound communication is not performed by the first wireless communication portion, and ii) if the controller detects that the second sound signal has low quality and the first sound signal cannot be received, packet communication for sound packets is performed by the second wireless communication portion, and the data communication is performed by the second wireless communication portion while there is no sound packet to be transmitted and received by the second communication portion.

3. The wireless phone as set forth in claim 1, wherein the second wireless communication portion controls a frame length of transmission packets in packet communication so that the frame length decreases as frequency of the switching between the first and second sound signals increases.

4. The wireless phone as set forth in claim 1, further comprising a correlator for calculating cross-correlation of signal waveforms between the first and second sound signals,

wherein the controller calculates peak time variation of a cross-correlation value output from the correlator, and controls the switching between the first and second sound signals while replacing the quality information of the first and second sound signals with an estimation result that the second sound signal has lower quality as the peak time variation increases, and further performs a delay control to compensate for the time difference between the first and second sound signals based on peak time difference of the cross-correlation value.

5. The wireless phone as set forth in claim 4, wherein in the case where data communication not employing sound is performed together with sound communication, i) if the controller detects that the first sound signal has low quality and the second sound signal cannot be received, the sound communication is performed by the first wireless communication portion, and the data communication is performed by the first wireless communication portion while the sound communication is not performed by the first wireless communication portion, and ii) if the controller detects that the second sound signal has low quality and the first sound signal cannot be received, packet communication for sound packets is performed by the second wireless communication portion, and the data communication is performed by the second wireless communication portion while there is no sound packet to be transmitted and received by the second communication portion.

6. The wireless phone as set forth in claim 4, wherein the second wireless communication portion controls a frame length of transmission packets in packet communication so that the frame length decreases as frequency of the switching between the first and second sound signals increases.

7. The wireless phone as set forth in claim 2, wherein the controller adjusts a period of time for calculating the cross-correlation of the signal waveforms between the first and second sound signals.

8. The wireless phone as set forth in claim 7, wherein in the case where data communication not employing sound is performed together with sound communication, i) if the controller detects that the first sound signal has low quality and the second sound signal cannot be received, the sound communication is performed by the first wireless communication portion, and the data communication is performed by the first wireless communication portion while the sound communication is not performed by the first wireless communication portion, and ii) if the controller detects that the second sound signal has low quality and the first sound signal cannot be received, packet communication for sound packets is performed by the second wireless communication portion, and the data communication is performed by the second wireless communication portion while there is no sound packet to be transmitted and received by the second communication portion.

9. The wireless phone as set forth in claim 7, wherein the second wireless communication portion controls a frame length of transmission packets in packet communication so that the frame length decreases as frequency of the switching between the first and second sound signals increases.

10. The wireless phone as set forth in claim 3, wherein the second wireless communication portion extracts and transmits a sound packet in packet communication.

11. The wireless phone as set forth in claim 10, wherein in the case where data communication not employing sound is performed together with sound communication, i) if the controller detects that the first sound signal has low quality and the second sound signal cannot be received, the sound communication is performed by the first wireless communication portion, and the data communication is performed by the first wireless communication portion while the sound communication is not performed by the first wireless communication portion, and ii) if the controller detects that the second sound signal has low quality and the first sound signal cannot be received, packet communication for sound packets is performed by the second wireless communication portion, and the data communication is performed by the second wireless

communication portion while there is no sound packet to be transmitted and received by the second communication portion.

12. The wireless phone as set forth in claim 10, wherein the second wireless communication portion controls a frame length of transmission packets in packet communication so that the frame length decreases as frequency of the switching between the first and second sound signals increases.

13. The wireless phone as set forth in claim 11, wherein the second wireless communication portion controls a frame length of transmission packets in packet communication so that the frame length decreases as frequency of the switching between the first and second sound signals increases.

14. A wireless communication method for performing a first wireless communication in circuit switching mode and a second wireless communication in packet communication mode, the method comprising the steps of:

a) performing switching between first and second sound signals at intervals of a speech pitch period based on quality information of the first and second sound signals, said first sound signal being received and decoded through the first wireless communication, said second sound signal received and decoded through the second wireless communication portion;

b) outputting a delay control signal to compensate for time difference between the first and second sound signals, based on the quality information of the first and second sound signals; and

c) compensating for the time difference between the first and second sound signals based on the delay control signal.

15. The wireless communication method as set forth in claim 14 , further comprising the steps of:

d) calculating peak time variation of a cross-correlation value between the first and second sound signals;

e) controlling the switching between the first and second sound signals while replacing the quality information of the first and second sound signals with an estimation result that the second sound signal has lower quality as the peak time variation increases; and

f) performing a delay control to compensate for the time difference between the first and second sound signals based on peak time difference of the cross-correlation value.